least one layer constituting said photothermographic material comprises an oxazoline compound.

REMARKS

Rejection of Claim 1 Under 35 U.S.C. 112, First Paragraph (Paragraph 2 of Office Action)

Claim 1 has been rejected by the Examiner under 35 U.S.C. 112, first paragraph, for the reasons set forth in paragraph 2 of the Office Action. This rejection is moot in view of the cancellation of the proviso.

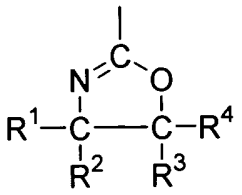
Rejection of Claims 1, 4 and 5 Under 35 U.S.C. 103(a) Over U.S. Patent 4,562,143 to Hirabayashi et al. and Rejection of Claims 2-16 Under 35 U.S.C. 103(a) Over U.S. Patent 4,562,143 to Hirabayashi et al. In View of U.S. Patent 5,955,251 to Koyama et al. (Paragraphs 4-6 of Office Action)

Claims 1, 4 and 5 have been rejected by the Examiner under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 4,562,143 to Hirabayashi et al. for the reasons set forth in paragraphs 4 and 6 of the Office Action. Claims 2-16 have been rejected by the Examiner under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 4,562,143 to Hirabayashi et al. in view of U.S. Patent 5,955,251 to Koyama et al. for the reasons set forth in paragraphs 5 and 6 of the Office Action. These rejections are respectfully traversed. Reconsideration and withdrawal thereof are requested.

The Present Invention

Claim 1, as amended, relates to a photothermographic material comprising a support having provided on at least one side thereof a photosensitive silver halide, a photo-insensitive organic silver salt, a reducing agent for silver ion and a binder, wherein at least one layer constituting said photothermographic material comprises an oxazoline compound.

Claim 2 relates to a photothermographic material comprising a support having provided on at least one side thereof a photosensitive silver halide, a photo-insensitive organic silver salt, a reducing agent for silver ion and a binder, wherein at least one layer constituting said photothermographic material comprises an oxazoline compound, wherein said oxazoline compound is a compound having two or more 2-oxazolyl groups represented by the following formula (1) in the molecule,



(1)

wherein $R^1$, $R^2$, $R^3$ and $R^4$ each independently represents a hydrogen atom, a halogen atom, an alkyl group or an aryl group, wherein $R^1$, $R^2$, $R^3$ and $R^4$ each does not independently represent a hydrogen atom

at the same time, and the alkyl group or the aryl group may have a substituent.

The Hirabayashi et al. Patent

The Hirabayashi et al reference discloses heat development of a photosensitive material comprising a support having provided thereon a heat development photosensitive layer containing photosensitive silver halide, organic silver salt, reducing agent and binder. Column 8, lines 11-25 further discloses that an anti-foggant may be used. One type of anti-foggant among the numerous antifoggants disclosed in the Hirabayashi et al. reference that may be used is an oxazoline.

The Koyama et al Reference

Col. 10, lines 13-30 of the Koyama et al reference suggests the use of an oxazoline compound in a thermal sensitive image forming material. This oxazoline compound is present in a subbing layer on the information recording material, since the purpose of this layer is to improve adhesion.

Distinctions Between the Prior Art and The Present Invention

In order to demonstrate the unexpected effect asserted in the response to the prior Office Action (i.e., the remarkable effect obtained by using the oxazoline compound) filed November 13, 2002, Applicants have conducted the following experimentation.

Applicants initially wanted to assert the effect obtained by using the claimed oxazoline compound as compared to the use of mercuric acetate as described in working example of Hirabayashi. However, the Examiner should readily understand that Applicants cannot currently conduct any experimentation using a mercury compound. Thus, Applicants have tested the effect of the present invention with a sample without an oxazoline compound, another sample with an oxazoline compound within the scope of claim 1 and another sample with an oxazoline compound within the scope of claim 2.

The cited reference (Hirabayashi) is not equivalent to and does not suggest the present invention. Even if the description of Koyama (which is different in its technical field and in the effect of the oxazoline compound) is taken into consideration, the teachings thereof cannot be expected to improve the image storage storability by using an oxazoline compound in photothermographic materials.

The same procedure as in sample 101 of Example 1 of the present application was performed except that the dispersion was prepared and added in the manner described below in order to prepare each of samples 1 to 5. The same evaluations as in Example 1 were conducted for the samples.

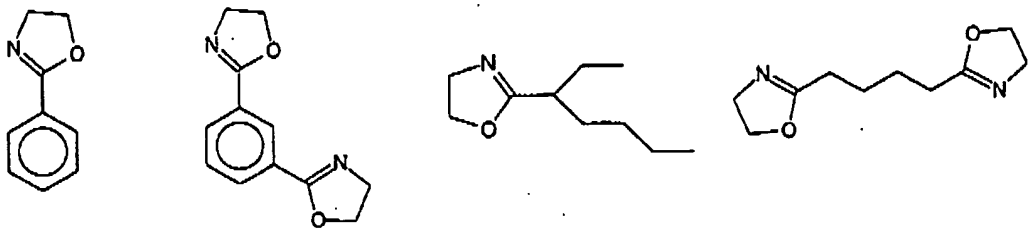
Dispersion A

A slurry was prepared by adding and thoroughly mixing 35 g of water with 20 g of Compound A of the present invention, 40 g of 10% by weight aqueous solution of modified poly(vinyl alcohol) (Poval MP203 of Kuraray Co., Ltd.), and 5 g of 20% by weight aqueous solution of sodium triisopropylnaphtharenesulfonate. In a vessel of a 1/16 gallon sand grinder mill, the slurry was charged together with 240 g of zirconia beads having an average diameter of 0.5 mm, and dispersed at 1500 rpm for 15 hours. The beads were separated with a mesh, the dispersion was filtered through a filter with a pore size of 3 μm. 20 % Dispersion A was obtained.

Compound B, C or D shown below was dispersed in the same manner as above to obtain Dispersion B, C or D, respectively.

The thus obtained results are shown in the following table.

| Sample No. | Oxazoline Compound | Coated Amount ($g/m^2$) | Dmin | △Dmin | Remarks |
|---|---|---|---|---|---|
| 1 | - | | 0.17 | 0.36 | Comparison |
| 2 | A | 1.0 | 0.16 | 0.30 | |
| 3 | B | 1.0 | 0.16 | 0.23 | Invention |
| 4 | C | 1.0 | 0.18 | 0.29 | |
| 5 | D | 1.0 | 0.18 | 0.21 | Invention |



A B C D

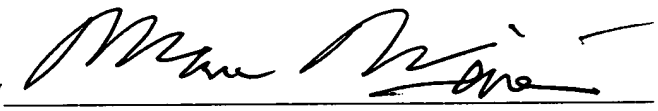
Accordingly, the present invention is unexpectedly superior to what is expected in the art. Thus, the prior art rejections should be withdrawn.

An executed Rule 132 Declaration will follow.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§1.16 or 1.17; particularly, extension of time fees.

Respectfully submitted,

BIRCH, STEWART, KOLASCH & BIRCH, LLP

By 

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**VERSION WITH MARKINGS TO SHOW CHANES MADE**

IN THE CLAIMS

The claims have been amended as follows:

Claim 1 (Twice Amended) A photothermographic material comprising a support having provided on at least one side thereof a photosensitive silver halide, a photo-insensitive organic silver salt, a reducing agent for silver ion and a binder, wherein at least one layer constituting said photothermographic material comprises an oxazoline compound[, with the proviso that the oxazoline compound is not oxazolidine].